

### **LISTING OF CLAIMS**

1. (Currently amended) A dynamic seal for a rotary shaft comprising a one-piece sleeve for being constrained in rotation directly on the shaft and an annular lip of polymer having a low coefficient of friction to come into sliding rotary contact with a stationary casing surrounding said shaft so that said dynamic seal provides sealing between said shaft and said casing, wherein said dynamic seal further comprises an annular encoder element of magnetizable polymer presenting at least one polarized mark, said encoder element being secured to said sleeve and having at least one annular surface to which said lip is bonded, and said lip being made of PTFE and wherein said lip is bonded directly to the annular surface of the encoder element.

2. (Previously presented) A seal according to claim 1, wherein the encoder element is made of elastoferrite.

3. (Cancelled)

4. (Cancelled)

5. (Previously presented) A seal according to claim 1, wherein the annular surface of the encoder element extends radially.

6. (Previously presented) A seal according to claim 1, wherein the encoder element is bonded directly to the sleeve, said sleeve being made of metal.

7. (Previously presented) A seal according to claim 1, wherein the encoder element presents a circular track provided with polarized marks formed by sectors with alternating north and south polarization.

8. (Previously presented) A seal according to claim 7, wherein the encoder element presents a first annular face facing radially inwards which is bonded directly to an outside wall of the longitudinally-extending sleeve, and a second annular face facing radially outwards on which the track provided with polarized marks is formed.

9. (Previously presented) A seal according to claim 8, wherein the second annular face presents a portion extending along a fraction of the shaft which is not surrounded by the stationary casing, the track provided with polarized marks being formed on said portion.

10. (Previously presented) A seal according to claim 7, wherein the sleeve presents an annular collar extending radially and in which the encoder element presents a first annular face extending radially, which face is bonded directly to said collar, and a second annular face parallel to the first face, on which the track provided with polarized marks is formed.

11. (Original) A device comprising a rotary shaft, a casing filled with liquid in which the rotary shaft penetrates, and a dynamic seal according to claim 1 having its sleeve constrained to rotate with the rotary shaft and having its sealing lip in sliding contact with the casing, thereby providing sealing between said shaft and said casing.

12. (Withdrawn) A method of fabricating a dynamic seal for a rotary shaft comprising a sleeve for being constrained in rotation on the shaft, an annular lip of polymer having a low coefficient of friction to come into sliding rotary contact with a stationary casing surrounding said shaft so that said dynamic seal provides sealing between said shaft and said casing, and an annular encoder element of magnetizable polymer having at least one polarized mark and at least one annular surface, the method comprising the following steps:

placing said sleeve, a blank for said encoder element having at least one annular surface, and a preform for said lip concentrically in a first half-mold, said blank being at least partially in contact with said sleeve, and said preform being at least partially in contact with the annular surface of said blank; and

hot-pressing by means of a second half-mold to vulcanize said blank, to bond said preform for said lip to the annular surface of said blank, and also to shape said blank for the encoder element and said preform for the lip to take up a determined profile.

13. (New) A dynamic seal comprising:  
a rotary shaft;  
a metal sleeve being constrained in rotation directly on an outer surface of the shaft;

an annular encoder element formed of a magnetizable polymer bonded directly to the metal sleeve and arranged to present a polarized mark; and

an annular sealing lip formed of PTFE and bonded directly to the encoder element and bonded exclusively to the encoder element.

14. (New) The dynamic seal of claim 13, wherein the encoder element is made of elastoferite.

15. (New) The dynamic seal of claim 13, wherein the metal sleeve includes an annular flange having an attachment surface disposed perpendicular relative to an axis of the shaft, and wherein the annular encoder element is bonded directly to the attachment surface.

16. (New) The dynamic seal of claim 15, wherein the attachment surface is oriented parallel to the shaft.

17. (New) The dynamic seal of claim 15, wherein the attachment surface is oriented perpendicular to the shaft.

18. (New) The dynamic seal of claim 13, wherein the metal sleeve comprises a U-shaped cross-section, and wherein the encoder element presents a circular track provided with polarized marks formed by sectors with alternating north and south polarization.

19. (New) The dynamic seal of claim 13, wherein the encoder element presents a first annular face facing radially inwards which is bonded directly to a longitudinally extending outside wall of the metal sleeve, and further includes a second annular face facing radially outwards on which a track provided with polarized marks is formed.